

FIG. 1 is a schematic diagram of a device 100. The device 100 includes a substrate 10, a layer 12, a layer 14, a layer 16, and a layer 18. The substrate 10 is a thin, flexible layer. The layer 12 is a thin, flexible layer. The layer 14 is a thin, flexible layer. The layer 16 is a thin, flexible layer. The layer 18 is a thin, flexible layer.

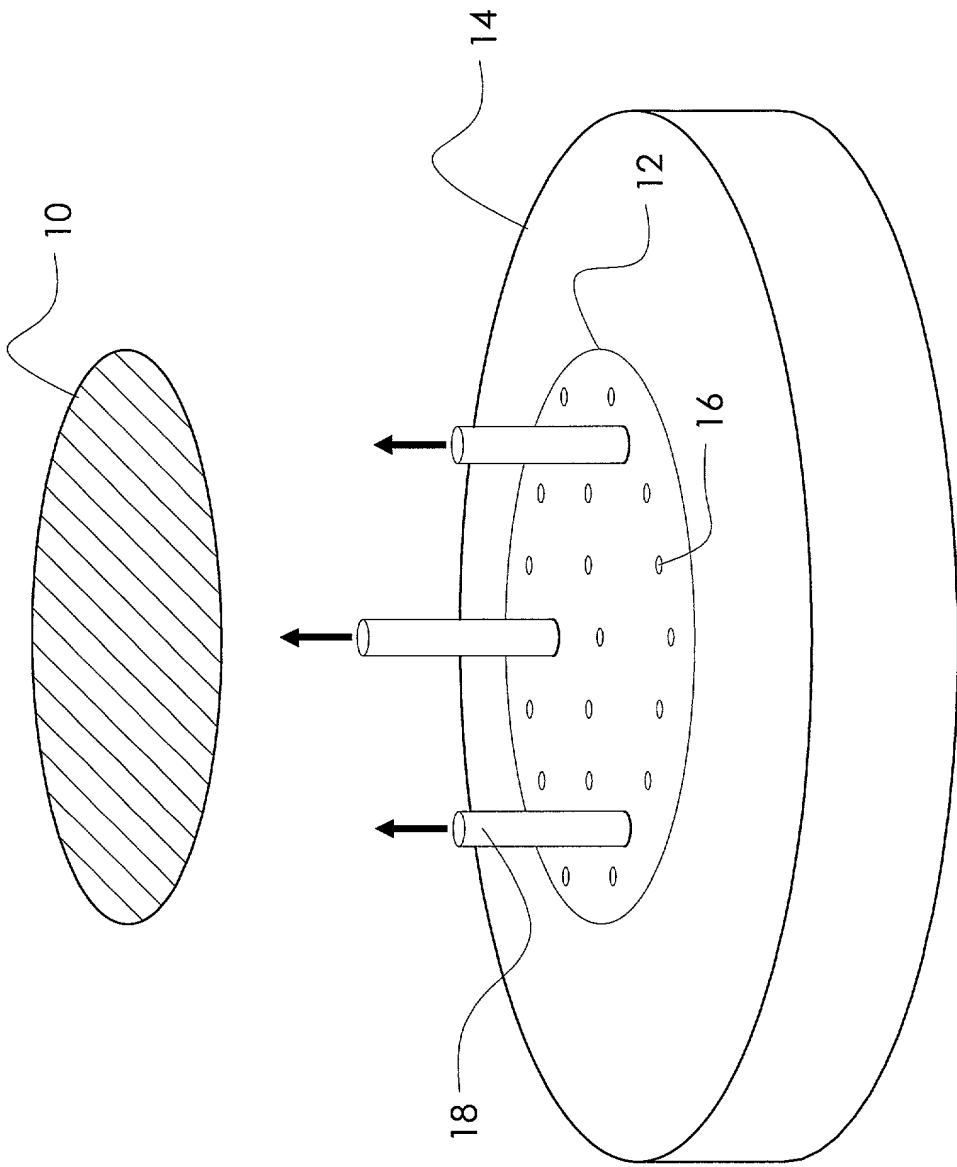


Fig. 1

FIG. 2 is a schematic diagram of a device 100 in a first state. The device 100 includes a first electrode 10, a second electrode 12, and a dielectric layer 20. The first electrode 10 is connected to a voltage source 26. The second electrode 12 is connected to a voltage source 20. The dielectric layer 20 is positioned between the first electrode 10 and the second electrode 12. The device 100 is shown in a first state, where the first electrode 10 is at a positive voltage and the second electrode 12 is at a negative voltage. This configuration causes the dielectric layer 20 to expand, as indicated by the double-headed arrow 24. The expansion of the dielectric layer 20 is due to the electrostatic force between the first electrode 10 and the second electrode 12. The device 100 is shown in a second state, where the first electrode 10 is at a negative voltage and the second electrode 12 is at a positive voltage. This configuration causes the dielectric layer 20 to contract, as indicated by the double-headed arrow 24. The contraction of the dielectric layer 20 is due to the electrostatic force between the first electrode 10 and the second electrode 12.

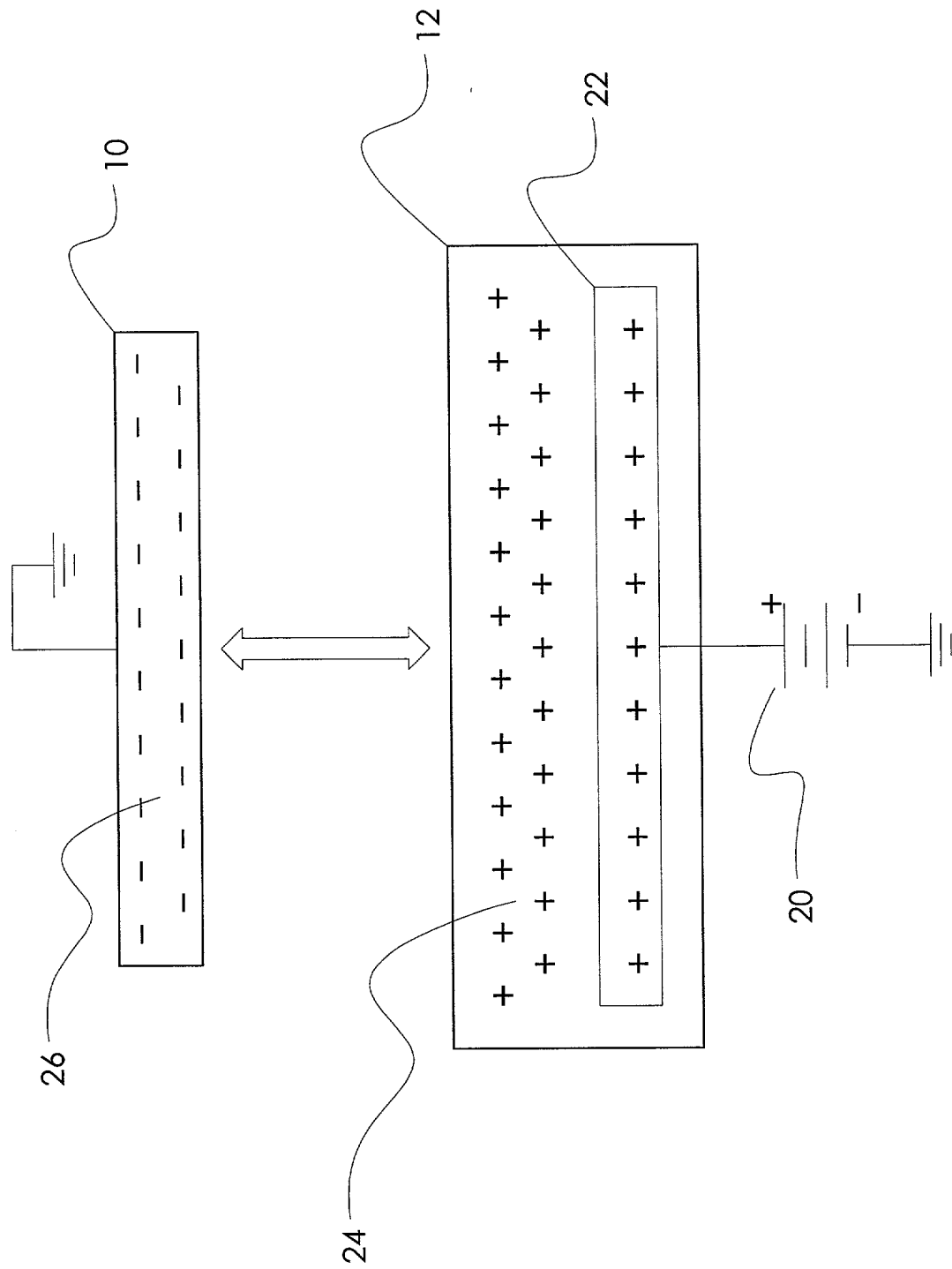


Fig. 2

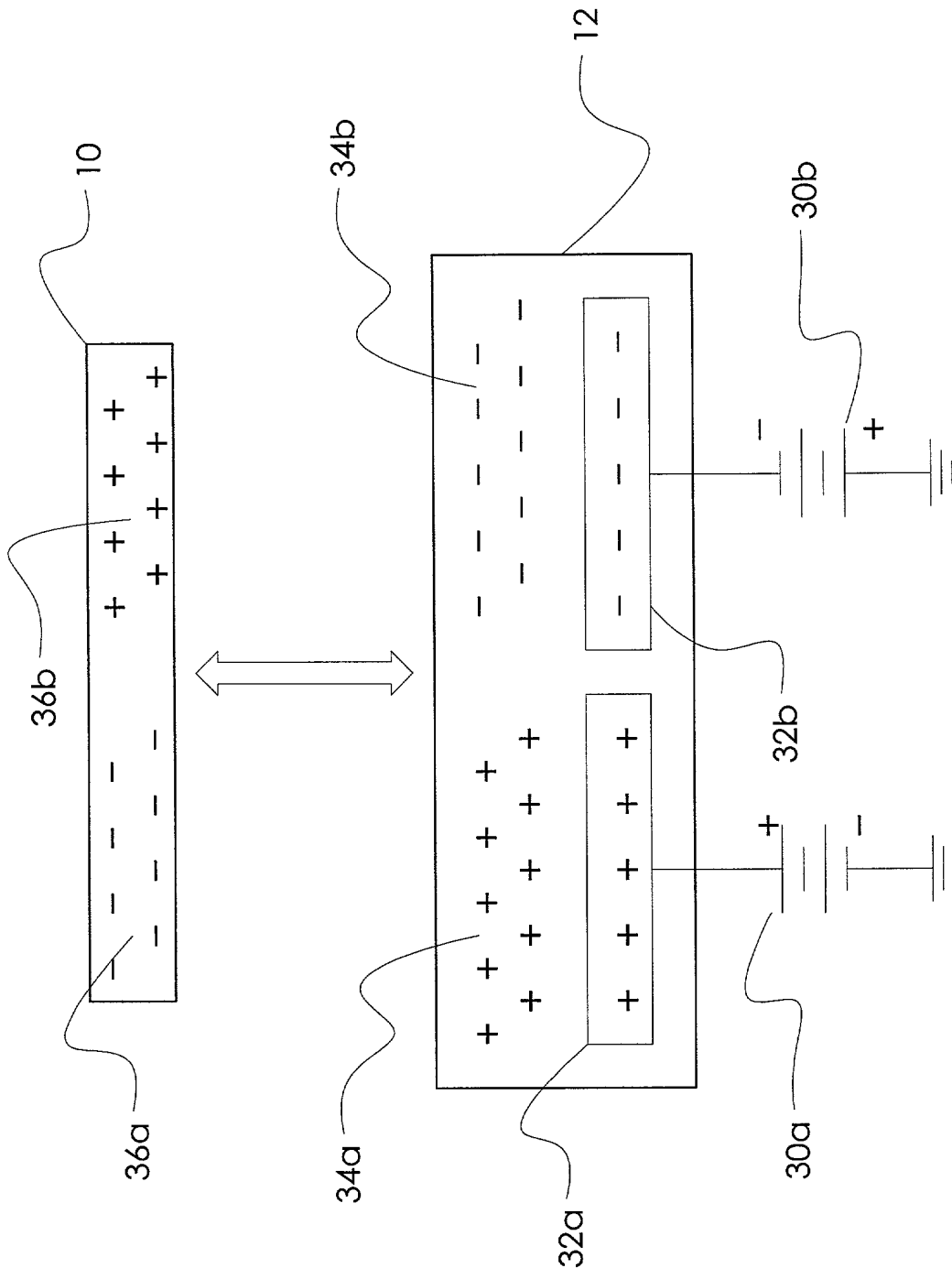


Fig. 3

FIG. 4 is a schematic diagram of a system for controlling a process. The system includes a process 10, a control system 46, and a feedback loop 80. The process 10 is represented by a large rectangle. The control system 46 is represented by a box labeled "CONTROL SYSTEM". The feedback loop 80 is represented by a line with a summing junction 82. The process 10 has two inputs, 18a and 18b, and two outputs, 40a and 40b. The outputs 40a and 40b are connected to sensors 42a and 42b, respectively. The sensors 42a and 42b are connected to the control system 46. The control system 46 is connected to the process 10 via a control line 44. The feedback loop 80 is connected to the process 10 via a feedback line 46. The summing junction 82 is connected to the process 10 via a line 82. The process 10 is also connected to a power source 80 via a line 80.

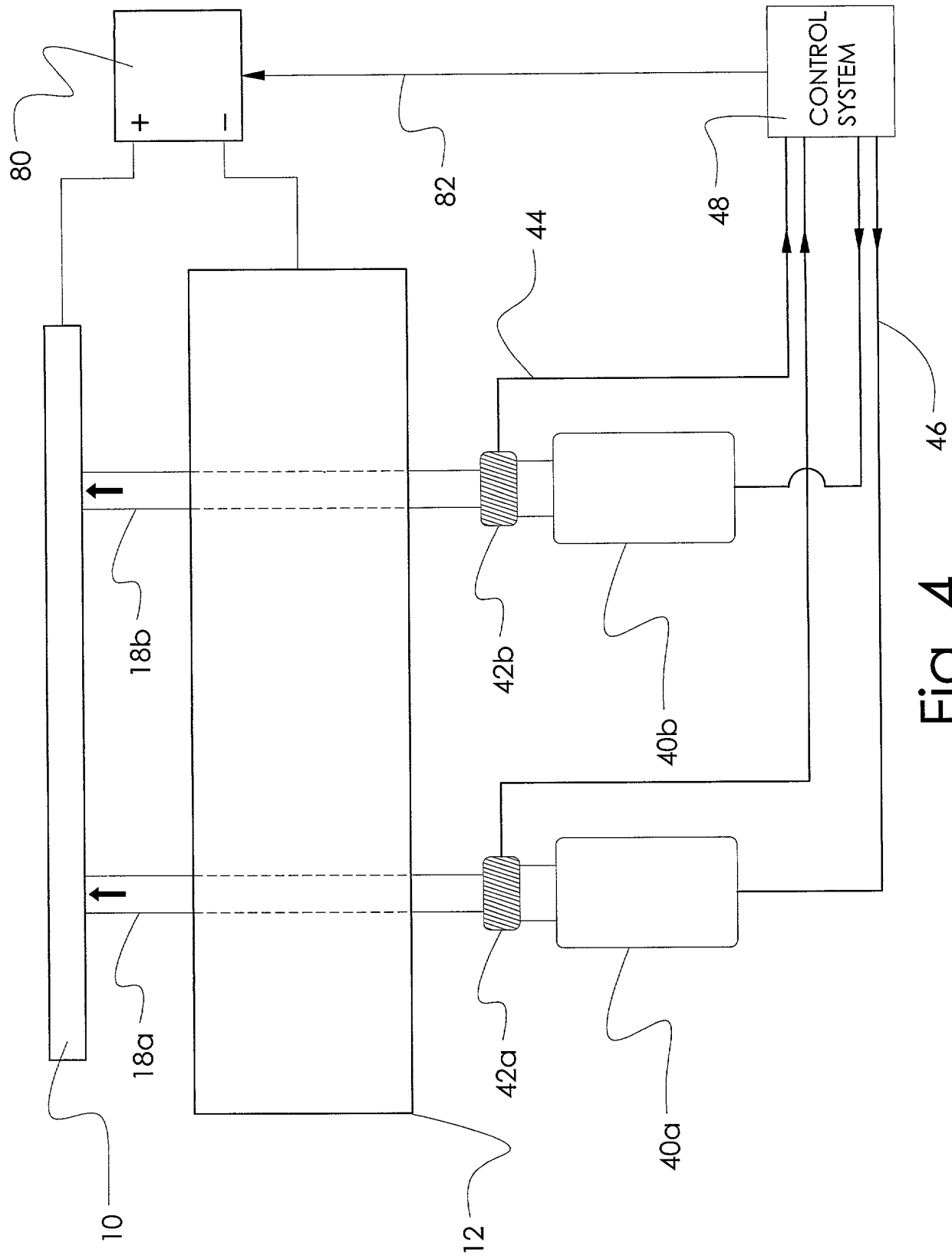


Fig. 4

Fig. 5 is a schematic diagram of a system for controlling a vehicle's position relative to a lane. The system includes a control system (46) that receives input from a sensor (10) and outputs control signals to actuators (40a, 40b). The control system (46) is connected to a sensor (10) via a signal line (48). The control system (46) is also connected to actuators (40a, 40b) via a signal line (46). The actuators (40a, 40b) are connected to a vehicle (12) via a mechanical linkage (82). The vehicle (12) is shown with a steering wheel (18a) and a steering column (18b). The control system (46) is also connected to a power source (80) via a signal line (82).

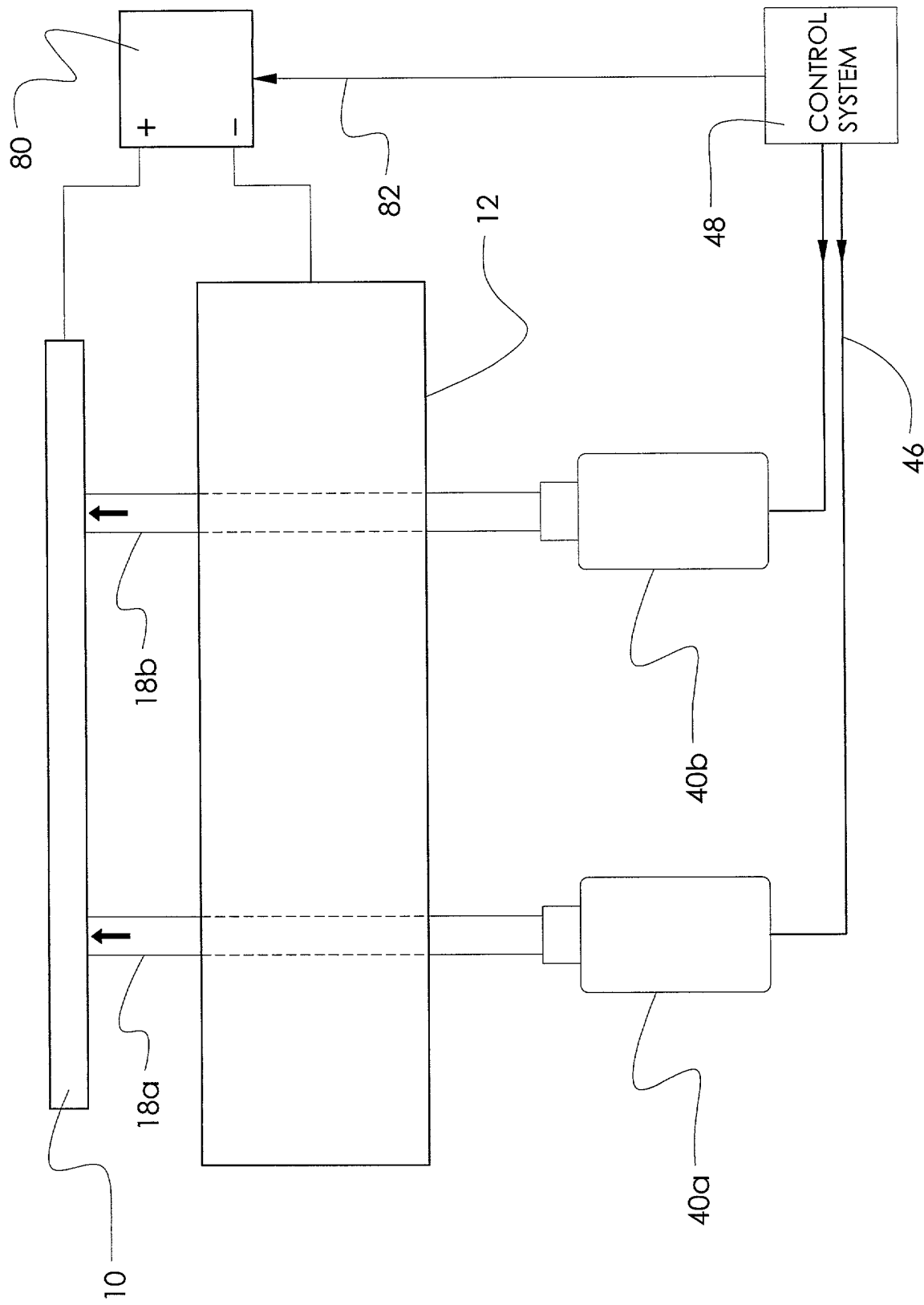


Fig. 5

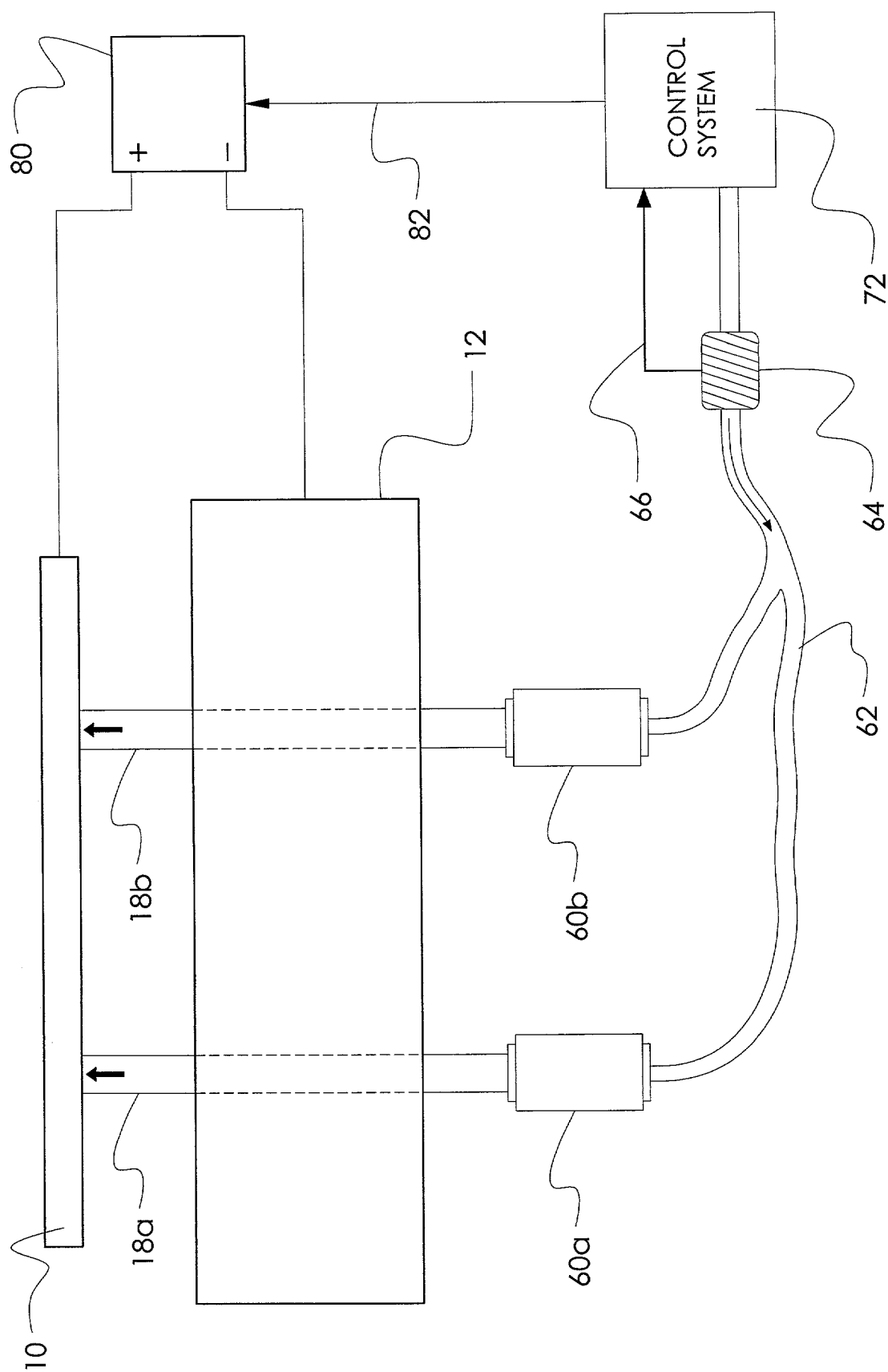


Fig. 6

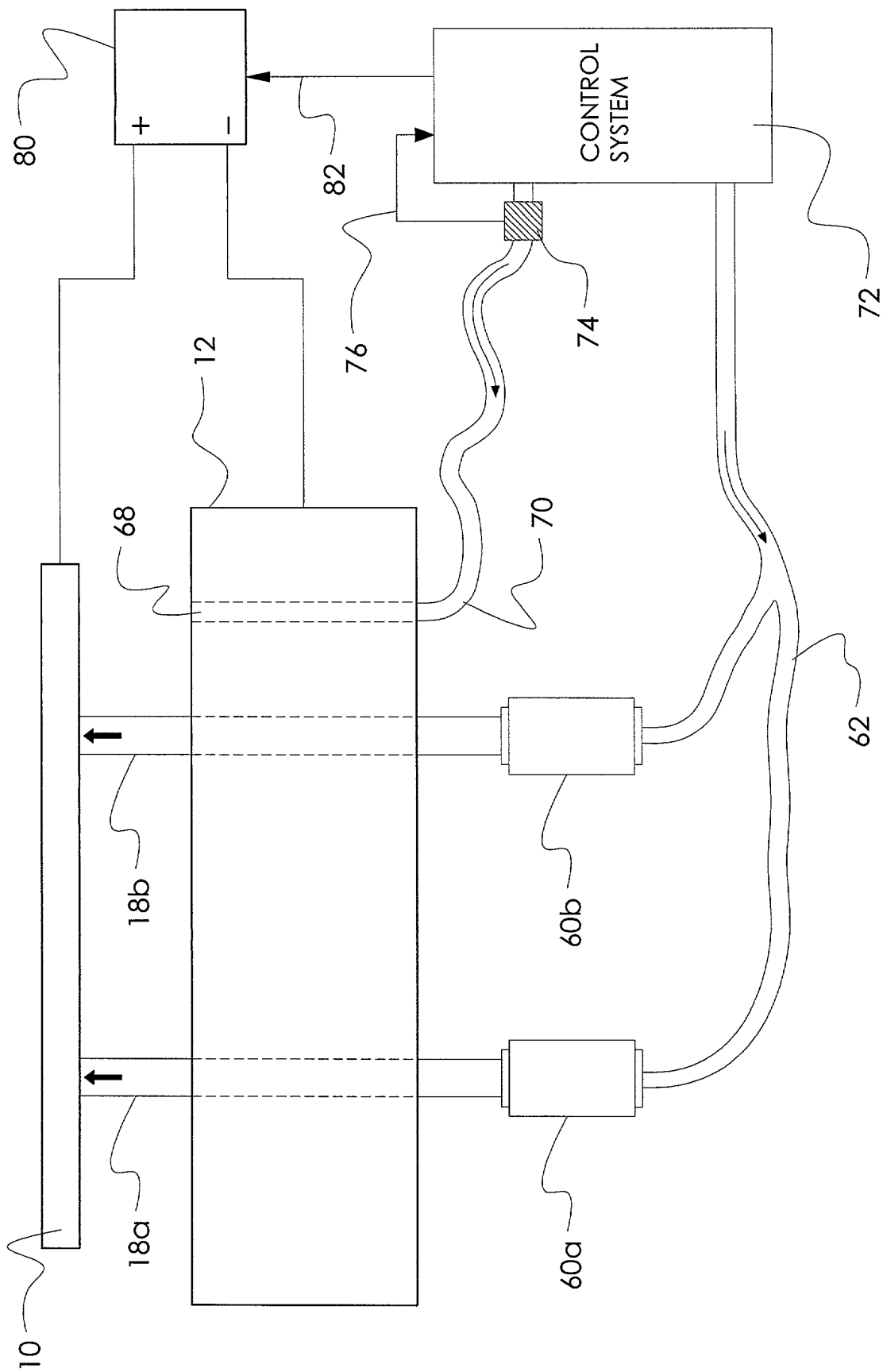


Fig. 7